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(54) METAL SURFACE TREATING AGENT, SURFACE-TREATED METALLIC MATERIAL AND RESIN COATED METALLIC MATERIAL

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain a chromium-free metal surface treating agent excellent in corrosion resistance and adhesion of a coating material by using an aluminum salt, a salt of a metal other than aluminum, a phosphorus compd. and a resin and/or its precursor as constituent components.

SOLUTION: The metal surface treating agent contains an aluminum salt, a salt of a metal other than aluminum, a phosphorus compd. and a resin and/or its precursor, has a phosphorus to aluminum equiv. ratio of ≥0.1 and does not contain chromium. The resin and its precursor fix all the other components in the treating agent except a solvent on a metal surface as a tough film. The resin preferably has a mol.wt. ≥1,000. The content of the resin and its precursor is preferably 30-80 wt.% of the total ant. of all the constituent components in the treating agent. The resin is preferably an acrylic resin, polyester resin, acrylic modified polyester resin, epoxy modified polyester resin or urethane modified polyester resin.